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U.S. Department of the Interior • Bureau of Land Management

BLM'S ASSESSMENT, INVENTORY, AND MONITORING STRATEGY

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The objective of the Assessment, Inventory, and Monitoring (AIM) Strategy is to provide a standardized approach for measuring natural resource condition and trend on Bureau of Land Management (BLM) public lands. The AIM Strategy provides quantitative data and tools to guide and justify policy actions, land uses, and adaptive management decisions.

AIM is...

- **Structured implementation** to guide monitoring program development, implementation, and management decisions.
- **Standardized field methods** to allow data comparisons throughout the BLM and in collaboration with BLM partners.
- **Appropriate sample designs** to minimize bias and maximize what can be learned from collected data.
- **Data management and stewardship** to ensure data quality, accessibility, and use.
- **Integration with remote sensing** to optimize sampling and calibrate continuous map products.

STRUCTURED IMPLEMENTATION

AIM monitoring starts with identifying clear management questions to inform when, where, and how often data are collected. This and all other steps of AIM are supported by a network of subject matter experts, including state leads, monitoring coordinators, agency partners, and the BLM National Operations Center. Collectively, the AIM team provides practitioners support with:

- Contracting for field crews and other services.
- Monitoring plan development.
- Identification and implementation of appropriate sample designs.
- Field methods training.
- Data collection, storage, and access solutions.
- Data quality assurance and control procedures.
- Analysis and reporting tools and support.

STANDARDIZED FIELD METHODS

AIM field methods were developed by a network of BLM and non-BLM partners to provide repeatable data for the BLM, while also standardizing monitoring throughout the Western U.S. and Alaska.



Terrestrial methods: Designed for uplands to provide data on habitat conditions.

- Example indicators derived from field methods: bare ground, vegetation height, proportion of large gaps between nonnative invasive plant species.
- Protocol: "Monitoring Manual for Grassland, Shrubland, and Wetland Systems," Technical Reference 1735-2 (2017)



Lotic methods: Designed to provide quantitative data for wadeable streams on all BLM-managed lands.

- Example indicators derived from field methods: conductivity, temperature, and cover, floodplain connectivity, and macroinvertebrate biology.
- Protocol: "AIM National Aquatic Monitoring Framework: Field Procedures for Lotic Systems," Technical Reference 1735-2 (2017)

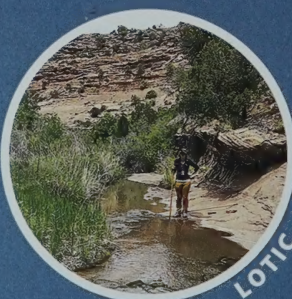


Lentic methods: Designed for wetlands and floodplains, the lentic data bridge the gap between terrestrial and lotic areas. The newest addition to the AIM program, the lentic data collection protocol was piloted in 2019 with expansion in 2020.

- Example indicators derived from field methods: bare ground, vegetation composition, soil characterization, water source, and pH.



TERRESTRIAL



LOTIC



LENTIC

Example management questions addressed by AIM:

- Are management areas meeting BLM land health standards?
- Where are invasive species located, and where are priority treatment areas?
- Are reclamation and restoration treatments effective?
- Is the BLM maintaining or improving habitat conditions for species of management concern?
- Are BLM land use plans effective?
- What are the current condition and trend of resources that may be affected by a proposed action?
- Is the BLM meeting performance measures outlined in the Department of the Interior Strategic Plan?

APPROPRIATE SAMPLE DESIGNS

The BLM uses the AIM Strategy to inform management decisions at multiple spatial scales, from individual restoration projects to national-level reporting. The AIM team at the BLM National Operations Center provides technical support for the development of appropriate sample designs (Figure 1) to match monitoring objectives from targeted sampling to spatially balanced, random sampling.

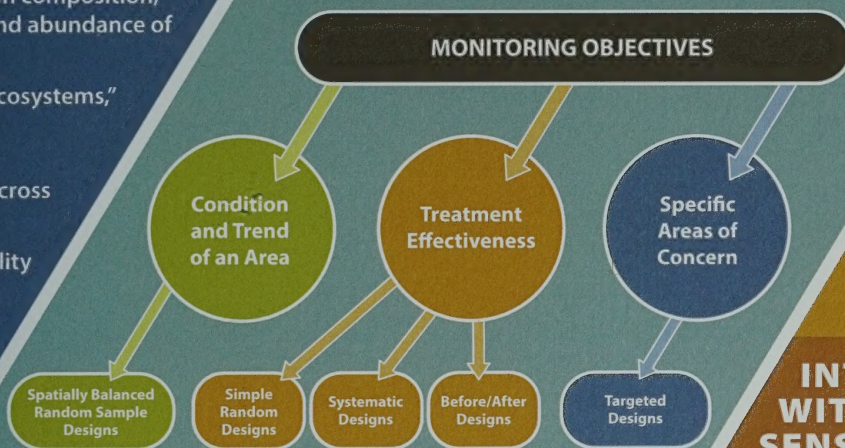


Figure 1. Examples of different AIM sample designs. Monitoring objectives define which design(s) is appropriate for a specific resource, area, or management question.

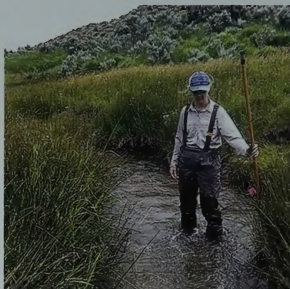
INTEGRATION WITH REMOTE SENSING

Remote sensing technology combined with on-the-ground AIM data provides land managers with multiple geospatial analysis tools related to:

- Bird's eye view of vegetation cover.
- Landscape trend analyses and monitoring.
- Sagebrush availability for sage grouse habitat mapping.
- Treatment effectiveness modeling.
- Remapping efforts of nationwide landscape datasets.

DATA MANAGEMENT AND STEWARDSHIP

AIM data are collected using mobile applications and stored in a centralized BLM repository that is available to users via web portals and spatial data services. Mobile applications allow for better integration of data quality assurance and control practices and also making data available sooner. Centralized data storage users the ability to analyze AIM data independently or with tools supplied by the AIM program.



CONTACT INFORMATION

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AIM Data

- Lentic (64)
- Lotic (2,445)
- Terrestrial (25,966)

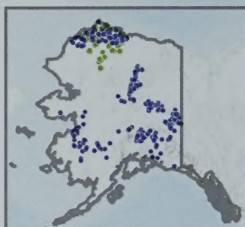
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View and access AIM data at:

<https://aim.landscapetoolbox.org/access>

For more information, please visit:

<https://aim.landscapetoolbox.org/>



Data available as of January 2020



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